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THE JOURNAL OF SCHOOL HEALTH

Deoted to the interests and advancement of school health service and instruction.
Your participation by membership is solicited.

Vol. XXI JUNE, 1951 No. 6

COMMON SKIN DISEASES*

ARTHUR R. WOODBURNE, M.D.

Denver, Colorado

It has been a great honor to have been invited to address this distinguished group, and, since your major interest is in student health problems, I plan to consider those conditions commonly seen in your field. I will discuss those conditions which you commonly see and will bring up for your consideration newer developments in our knowledge of these diseases and their treatment.

Impetigo Contagiosa,—The most common pyogenic disease of the skin is caused by the ordinary staphylococcus aureus and sometimes the common streptococci. Impetigo is characterized at the onset by a very superficial flaccid bleb which ruptures almost at once. This is followed by a pasted on yellow crust which extends with satelite blebs and arciform figures. We usually consider this a disease of a low virulence organism on a skin of decreased risistance. Our most effective simple routine consists in removal of crusts with soap and water, cool boric compresses followed by the application of an ointment containing 1 to 3 percent ammoniated mercury ointment.

Since impetigo rarely produces systemic toxic symptoms or serious illness, systematic treatment with the sulfonamides or penicillin is usually not indicated.

The topical use of sulfonamides in the form of ointments and lotions cannot be too heartily condemned since they are usually no more effective than other antiseptics and frequently sensitize the patient precluding their use when gravely needed in serious infections. Penicillin and streptomycin are also serious sensitizers when used topically and are not recommended. Bacitracin and aureomycin ointment seem to produce epidermal sensitization much less fre-

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From the Department of Dermatology, University of Colorado Medical School, O. S. Philpott, M.D., Professor, and the private practice of Drs. O. S. Philpott & A. R. Woodburne.

*Read before the Annual Convention of the American School Health Association, St. Louis, Mo.

quently and both may be used with reasonable safety in stubborn cases.

Scabies,—Scabies is a very easily transmittible parasitic disease caused by the acarus scabiei. It is commonly transmitted by direct contact, clothing and bedding, and is characterized by itchy urticarial papules about the waist, the inner thigh and flexure surfaces of the arms and legs. The anterior and posterior axillary folds show larger infiltrate papules and placques. Similar lesions are seen on the scrotum and the shaft of the penis in boys and about the nipples in girls.

The routine use of sulphur, or balsam of peru and sulphur combinations in the treatment of scabies has been largely superceded by the use of less irritating preparations. A 25 percent emulsion of benzyl benzoate used for twenty-four to forty-eight hours gives very good results and is less irritating than the sulphur compounds. Two new preparations of complex organic structure are very good preparations, both have the advantage of being good antipruritics as well as antiscabetics. They also are fairly safe from the standpoint of epidermal sensitization. Eurax 10% N-ethel-o-crotonotulide is one and Kwell 0.5% gamma isomer of benzine hexachloride the other. They are used by general application on two successive nights.

All antiscabetic routines must include thorough sterilization of all underclothes, bed linen and pajamas by boiling after the treatment. The whole family should be treated in most cases to prevent the reinfestation of one member after another in the family.

Pediculosis Capitis,—This is still seen in school though not nearly as prevalent as a decade or two ago.

The diagnosis is made by finding the minute pediculi on the hair and scalp and the nits or eggs attached about a quarter of an inch from the hair roots. A purulent infection of the scalp in the occipital area should point to the search for pediculi since repeated scratching commonly is the cause of this type of infection.

The use of 1 percent D.D.T. in a 25 percent emulsion of benzyl benzoate is a very effective preparation in the treatment of this condition, combined with repeated shampooing.

Tinea Circinata,—The common fungus infection of the smooth skin of the body is a frequent infection in school children. This infection may be seen as a complication of tinea capitis or independently. The two common organism causing this type of ringworm are the microsporon lanosum which is usually transmitted by pets (dogs and cats) and trichophyton gypseum transmitted

from child to child. This is the type of fungus infection which gives the common name of ringworm since the lesion looks lke a ring or group of arciform figures with peripheral extension and central involution. The advancing border is superficially vesicular or edematous and scaly while the center of the lesion is dry and scaly.

The treatment of this condition is usually simple since the daily painting of these lesions with a 1 or 2 percent solution of iodine is usually effective. A 5 percent ointment of ammoniated mercury rubbed in each day is also curative. Newer preparations of unsaturated fatty acids, ointments of undecylenic, propionic and caprylic acid are on the market and are also effective though we feel no more effective and no less irritating than the above older remedies.

Athletes Foot,—The problem of vesicular eruptions of the feet and hands is a very grossly misunderstood situation. The emphasis on fungus infections in dermatologic teaching twenty years ago and since has made many physicians and nurses sure that all vesicular eruptions in these areas are caused by a fungus. In our experience not more than 10 percent of these are actually caused by fungi.

The most common cause of maceration between the toes, vesicles on the sides of the fingers and toes and sides of the feet is the hyperhidrosis-dysidrosis syndrome. This becomes chronic and is repeatedly infected with pyrogenic cocci. Soon a chronic eczematoid eruption develops due to the developing bacterial allergy. We call this an infectious eczematoid dermatitis. The third most common cause of these eruptions is the fungus. Here the vesicles are deep, show peripheral extension and are usually seen in the instep. Pustular psoriasis and pustular bacterid are two other less frequently seen conditions which are confused in the problem of athletes foot.

Athletes foot then is rarely a fungus infection. The differential diagnosis requires large clinical experience, skin tests for bacterial hypersensitivity, direct examination of scales for fungi and fungus cultures. This group of tests is rarely available except in a dermatologists office. I have gone into detail to emphasize the uselessness of routine use of fungicides, Whitfield ointment, Desenex ointment and powder in the routine care of athletes foot. If a definitive diagnosis is not to be made the routine use of aluminum acetate wet dressings and a mild ammoniated mercury ointment would be much more effective and cause much less harm than the indiscriminate use of strong fungicides.

The use of chlorinated and other type foot tubs in gymnasia has been given up as of no value. For routine foot care in locker

rooms and pools thorough drying of the feet after showers, especially between the toes with the use of a 4 percent boric acid powder in talc would be the best simple routine.

Tinea Capitis,—Epidemic tinea capitis in this country has been largely confined to the eastern seabord for the past fifty years. Such sporadic cases as were seen in other parts of the country were largely transmitted by pets (cats and dogs) and there were few epidemics of human to human transmission. During the past ten years there has been a gradual spread over the country. Several large epidemics have resulted and have been investigated and reports made in Medical Journals.

The Department of Dermatology, Wayne University, investigated and reported on a severe epidemic in Detroit in 1943-1944. The United States Public Health Service investigated an epidemic in Hagerstown, Maryland in 1944-1945 and more recent reports have been made on an extensive epidemic in the St. Paul, Minneapolis area.

During the past five years we have been cognizant of a sharp rise in incidents of the human type of tinea capitis in the Denver area. Preadolescent children are the only group involved.

Mycology,—Two species of fungi are commonly found in tinea capitis.

1. Microsporon Lanosum. This form is transmitted by pets, sporadic cases are always seen and human to human spread is unusual. Result of treatment in these cases is excellent with local treatment in one month to six weeks.
2. Microsporon Audouini produces the so-called human type tinea capitis which is spread from human to human and is transmitted usually by:
   (a) Barber's tools (Hagerstown Epidemic)
   (b) Theatre seats (St. Paul, Minneapolis Epidemic). This type is extremely resistant to treatment, produces epidemics among school children and requires four to six months of *vigorous, intelligent* local medication to cure fifty percent of the cases.

Diagnosis,—In the serious epidemic type, the condition is first discovered as a small, scaly, noninflammatory area usually in the occipital region. Here the hairs are broken off close to the scalp. This gradually increases in size until much of the scalp may be involved. The microsporon lanosum type shows much more inflammation, deep infection, boils, et cetera, but is much more amenable to treatment.

For quick clinical investigation of these cases nothing is of so great value as the Wood's light, a source of ultraviolet light transmitted through a Cobalt glass filter. Under this light both these fungi produce a bright yelow-green fluorescence. A cheap source of this light is available in the Purple X 250 bulb.

Proper treatment and follow-up of the cases is almost impossible without this light. Most dermatologists have these lights available in their offices, and in the periodic surveys by the Health Department of the Denver Public Schools these lights are used.

To determine which fungus is responsible in any individual case, culture is necessary. Obviously accurate prognosis and estimate of necessary treatment must be based on cultural examination.

To gain some idea of the seriousness of this epidemic in the Denver area the early investigation in schools in the South and West, the most heavily infected areas, shows that 8 percent of the first fifteen hundred school pupils were infected.

Treatment,—The New York Department of Health, which has worked with this epidemic human type of tinea capitis for years, has insisted on immediate epilation and exclusion from school until all fluorescent hairs have been eliminated.

However, experience in Detroit, Hagerstown, St. Paul and Minneapolis shows that many may be cured by adequate local treatment, that compulsory epilation may be followed by unpleasant medico-legal problems and that exclusion of so many children from school is harmful to them and not necessarily conducive to early cure.

Our recommendations for treatment, therefore, are as follows—

1. Repeated check of all school children by the school nurse under the Wood's light once a month.
2. When fluorescent hairs are found, that these be cultured to determine the type of fungus causative.
3. That all infected children be sent to their physician for care. That the hair be kept shaved or closely cropped. That a boilable skull cap be worn at all times and that the parents be instructed to have a clean, freshly boiled cap put on each morning.
4. That adequate local treatment be tried for a period of three months, and if the case proves resistant to treatment that epilation by the x-ray be considered at the end of this time.
5. Scrupulous cleanliness, frequent shampooing, care to keep the hair clipped very short and vigorous use of recom-

mended fungicides is essential if any results are to be obtained with topical medication.

6. X-ray epilation has been generally discarded since several new fungicides have proven to be effective with vigorous use. The salicylanilide group of antiseptics were proven helpful in the Hagerstown epidemic and have been very useful in our work. A new antiseptic of the nitro-furan group has also proved effective. Podophyllin in 1 percent strength in carbowax (1500) has also been very useful.

Verrucae — Warts, — Warts are caused by a specific filterable virus and the general belief now is that all four types are caused by the same virus. The location determines the type of verruca seen.

Verruca vulgaris, the common wart seen on hands and arms, is recognized by all. This wart on the sole produces a hard, hyperkeratotic callous-like lesion because of constant pressure and is then called a plantar wart. Plantar warts are causes in some cities for exclusion of their bearers from swimming pools and gymnasia. Since all warts are infecious and caused by the same virus it seems illogical to exclude these patients if all wart bearers are not also excluded. If all those with warts were excluded from these activities a large percentage of students would be excluded.

In moist areas, the axillae, groin, intergluteal fold et cetera, warts grow as moist, vascular, hypertrophic, raspberry-like tumors. These are known as verrucae acuminata.

Flat, yellowish brown, pin-head to pea-sized verrucae appearing on the face and arms are the juvenile flat wart or verruca plana juvenilis.

Treatment of verrucae is very varied and warts are one of our most unpredictable lesions. Probably the generally most effective method is electrocoagulation with or without local anesthesia. The disadvantage of this modality is that an ulcer is left which, particularly on the hands, gets secondarily infected or irritated and heals slowly. Topical application of keratolitics such as salicylic acid, trichloracetic acid and Vlemincks solution are useful, particularly in the flat wart. Podophyllin 25 percent in equal parts acetone and alcohol 95 percent painted on the acuminate variety is most effective. Plantar warts are effectively treated with radium or x-ray therapy. The dose must be large, and if recurrence does occur, these modalities must not be repeated because of the danger of permanent damage to the skin and underlying structures. However, they are good methods in the hands of experts in their use.

Freezing techniques are effective; in many the carbon dioxide

slush freezing of flat verrucae is quite successful. In the common type wart deep freezing with solid carbon dioxide proves useful in some. The use of liquid nitrogen has been very effective in our hands in all types. Liquid nitrogen boils at 195 below 0°C. and when applied to a wart with a wooden applicator will give a very solid freezing with very little pain. A small hemorrhagic vesicle usually develops under the wart in two or three days. It gradually dries up and scales off. The disadvantages of this method are that liquid nitrogen can be obtained only where an air distillation plant is near at hand. It must be carried in an open metal thermos jug and evaporates so rapidly that it must be used within a few hours. Thus it is only economically useful to one who has several patients collected to be treated at a specific time.

Acne Vulgaris,—Acne, the ordinary comedo-papulo-pustular eruption of adolescence, is often a serious problem because of psychological problems in children at this age and also because of permanent scarring which may follow.

For many years observers have felt sure that acne was a disease of hormonal imbalance. In recent years evidence has accumulated which makes us all sure that acne is a response of the oil glands to an androgen estrogen imbalance with the androgen in preponderance.

In the younger children we feel that some elimination of rich foods and cutting down the fat intake with lotio alba or some similar preparation locally is all that should be prescribed. Frequently this is sufficient to tide the young person over the period until nature corrects the temporary imbalance of the hormones associated with puberty.

At seventeen years of age, or, in the presence of deep cystic and scarring lesions, more vigorous treatment is indicated. Stillbesterol in doses of 0.25 mgm. for boys and daily for the first ten days of the menstrual cycle in girls is often of great benefit. The injectable estrogens may be used in more stubborn cases in combination with proper dietary and topical care.

The new antibiotics over several weeks period are helpful in those cases showing a marked pustular reaction. In order of their effectiveness these are in our experience terramycin, aureomycin and penicillin. A prolonged course of the staphylococcus toxoid or similar vaccine is also of use in the case showing a marked pustular component.

X-ray therapy which was almost universally used in these cases ten years ago is now almost never used. While x-ray therapy was frequently effective it also was often followed by permanent

sequalae of a skin too dry, hyperpigmented and in some cases even atrophy.

The frequent pealing with carbon dioxide slush is now generally used. This method produces no permanent harmful sequalae and is extremely helpful in avoiding scarring and helps in eliminating the deep cystic lesions.

Thus, our present routine consists in hygienic care in diet and washing followed with pealing lotions, more vigorous pealing with carbon dioxide slush and the use of the antibiotics and the hormones in selected cases.

Carcinoma,—Everyone these days is very cancer conscious, and I am presenting this case to warn school health personnel to keep cancer in mind.

We see perhaps once a year a child of school age with a skin cancer. The presented case is that of a sixteen year old red headed, freckle faced ranch boy with a squamous cell carcinoma of the lower lip which we treated during the past year.

I hope this discussion of common skin problems as seen by you in the schools will bring the newer developments in diagnosis and treatment to you in a way which may be of help to you in your work.*

*It is regretted that expense of reproduction makes it impossible to reproduce the excellent pictures presented by the author.—C.H.K.

Frank S. Stafford.—The May issue of the Journal of the American Association for Health, Physical Education and Recreation carriers a notice of the death of its newly elected President, Frank S. Stafford, in an automobile accident on his way back from the National Convention at Detroit. Mrs. Stafford was killed in the same accident.

On May 28th, 1951, Miss Cora Helgesen, R.N., one of the first school nurses in the Minneapolis Public Schools, and since 1915, Supervisor of School Nurses in those schools, died at her home in Minneapolis, Minnesota. Miss Helgesen was also a member and officeholder in several state and national nurses associations and a member of the American Public Health Association and of the American School Health Association. An early leader in the School Nurse field she leaves a host of fellow-workers-friends.

PHYSICIAN PARTICIPATION IN SCHOOL HEALTH SERVICES*

A Report on the Analysis of a Questionnaire to Medical Societies on Physicians and Schools

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This is a report on one part of a survey of school health services in the United States. It presents an analysis of a questionnaire covering the participation of physicians in the school health program. The questionnaire was distributed by the Bureau of Health Education of the American Medical Association to the secretary of each of the organized medical societies in the 48 states, the District of Columbia, and the territories. The survey is being made in coöperation with the Office of Education of the Federal Security Agency which is now studying other aspects of school health services as a part of the total investigation.

If school health services are to be brought to their culmination, the private practitioner or family physician must of necessity participate in the program. While his place in all phases of school health services is important, it is in the follow-up, correction, and adjustment of health needs that his role becomes most vital.

Numerous instances of excellent cooperation between family physicians and health and education departments have been reported to the American Medical Association from various places. Over a period of years, good relationships have been extended by the work of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association, which has been functioning continuously since 1911. In recent years an attempt has been made to define more closely the kind of relationships that should exist between physicians and schools through the National Conferences on Physicians and Schools held in 1947 and 1949.

The extent of physician participation in the school health program on a nation-wide basis, however, has not been specifically known. It was therefore decided to study this problem through a

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questionnaire on physicians and schools directed to all local medical societies.

The purposes of the survey were (1) to determine the extent of participation of private physicians in school health programs; and (2) to suggest methods of physician participation that might be instituted in local areas where such practices do not already exist. it should be emphasized that this study was concerned only with the presence or absence of certain health service activities in a given area, and in no case attempted to evaluate the quality of the services.

Procedure

Questions were developed covering various school health services which embodied widely accepted principles such as those found in *Suggested School Health Policies.*[1] *Reports of the 1947 and 1949 Conferences on Physicians and Schools,*[2] *Health Appraisal of School Children,*[3] and *Health in Schools.*[4] One question on health instruction was also included, on recommendation of several leaders in the field who stressed the importance of the physician's role in suggesting pertinent health topics and in evaluating the scientific accuracy of health materials.

Many of the queries made were frankly leading questions, deliberately adopted with the belief that questions pointing up recommended principles would implement the second stated purpose. The impact of this procedure on the nature of responses may be considerable. On the other hand, weighing comparative values suggests that the merits of a positive approach are likely to overbalance any inaccuracies that may have resulted.

As far as possible, the questions were constructed to require "yes" or "no" answers. Others were set up so that the respondent circled the answer most nearly corresponding to his situation; for example, the varying percentages of children immunized before school entrance. In a few instances, such as the average number of minutes per pupil spent on periodic medical examinations, a direct answer was requested.

The Bureau of Medical Economic Research of the American Medical Association advised on the design of the study, provided technical assistance in developing the questionnaire, and conducted the machine tabulation of results.

Previous to final distribution of the questionnaire, a trial run was made with a limited number of medical societies to test the effectiveness of the instrument. At the same time, the questionnaire was sent to outstanding medical and educational leaders in the

school health field, with a request for comment and criticism. As a result of the trial run, and the suggestions received, appropriate modifications were introduced. The questionnaire was then submitted to the Office of Education for approval. Before printing, several additional adjustments were made, taking into account the recommendations of the staff of the Office of Education.

Findings

Of the 1,897 questionnaires on Physicians and Schools mailed to medical societies a total of 1,051, or 55.4 per cent, were returned. Of these, 48 were incomplete or received too late to include in the summaries. The remaining 1,003 questionnaires are considered in this report, about 52.9 per cent of the possible return. Medical society officers submitted 75 per cent of these, while the remaining 25 per cent came from school or health departments to which the local medical societies had referred the questionnaire. Sixty per cent of the returns covered schools in the one or more counties conforming to the areas from which the local medical society membership was drawn. Except for a very few, describing a single school, the remaining 40 per cent involved the schools in a major city or a city-county school system corresponding with local medical society coverage.

General Interpretation of the Response

A number of qualified answers were given to the "yes" and "no" questions indicating that certain practices were not universal in a given community. For purposes of this report, any favorable response, even though modified or qualified, has been treated as a "yes" answer. Questions requiring a quantitative answer (for example, those in which the respondent circled a percentage) presented some interpretive difficulty. A blank or "no" answer has in these cases been tabulated as a complete absence of the practice, although in many instances it may indicate inability of the respondent to arrive at a considered point of view on percentage. Questions requiring a direct answer have been coded and tabulated categorically after preliminary study of the frequency of responses.

In appraising the general nature of the response, it should be kept in mind that the returns may be largely representative of those medical societies most interested and active in school health work. Conversely, the societies that failed to return the questionnaire may be those where health service relationships between the medical profession and the schools on a formal basis are least developed. On the other hand, the great bulk of physicians have school age patients. Health services, therefore, are often rendered to children

as part of the physician-family relationship without recognition of the connection these services may have with the school program.

It is interesting to note that returns from the more densely populated regions of the country averaged 62 per cent, while the less densely populated regions returned 42 per cent of the questionnaires sent to them. The percentage of returns from the nine census divisions (regions) of the United States ranged from 38 to 69 per cent. Since the total response was relatively high and represents a good cross-section of medical societies in the various sections of the country, it may be regarded as a fairly descriptive sample.

Physician Participation in School Health Policy Formulation

A School Health Committee, with that title, was reported by 18 per cent of local medical societies. In the absence of a committee by that name, 16 per cent of the medical societies have assigned school health functions to their public health, legislative, or child health committees, or to local hospital staffs. A little over a third (34 per cent) of the medical societies are, therefore, directly concerned with school health service within their professional organizations.

School health councils, having membership outside of the school, were reported in 27 per cent of the communities; with medical society membership on such councils in 24 per cent. This means that in nine places out of ten, where such councils exist, the local medical society is officially represented.

Since the organization of the health and fitness division of the Bureau of Health Education in 1946, the establishment of school health committees in state and local medical societies has been encouraged. Findings demonstrate considerable progress and suggest not only a willingness of medical societies to concern themselves with school health problems but a recognition by educators of the need for consultation with physicians in planning the health service aspects of the school health program.

Medical Advisory Service

It has been widely recommended that schools have the services of a physician, on a full- or part-time basis, according to need.

About half of the areas reported some school medical advisory service in their rural grade schools and more than half have such service in their city grade and high schools. The comparatively small number of full-time school physicians, 4.6 per cent in rural schools, and up to 6.6 per cent in city elementary and high schools, is a reflection of the limited number of physicians trained in school health and seeking school positions as career jobs.

Medical Examination and Testing of Children

Periodic medical examinations of school children have been accepted as an important aspect of school health services for many years. A physician can perform a good screening examination and counsel with the child and his parents at the rate of four to five per hour, providing a nurse or teacher has completed certain screening tests earlier. This suggests an average of 12 to 15 minutes per child, although the time spent on individual children may vary greatly. Considerable deviation in the time devoted to examinations was reported. In 460 responses on the examination time in physicians' offices the median was 15.6 minutes while the quartiles fell at 10.7 and 20.6 minutes. In the 601 instances in which time spent on medical examinations in the school was specified, the median time was 10.4 minutes and the quartiles fell at 5.5 and 15.3 minutes. The differential of approximately 5 minutes may be due to a saving of physicians' time in the school situation by teacher, nurse, or other school health personnel, or it may indicate a more adequate examination in the office where the physician is accustomed to work.

The data on where examinations are performed are inconclusive, though the pattern tends slightly toward conducting examinations in the school. There is little difference between the proportion of examinations performed by private physicians and school physicians. Many of the schools made use of neither a school nor a private physician for medical examinations.

Routine chest x-rays by any accepted method, and tuberculin tests with x-ray examination of positive reactors were also investigated. Routine x-ray examinations were reported on 43 per cent of the returns, and the grades tested in 39 per cent. One or more of the junior and senior high school grades (7 to 12) are routinely x-rayed according to 28 per cent, and all grades by 7 per cent; 4 per cent x-ray variable distributions of grades throughout all twelve years of school.

Routine tuberculin tests were reported in 41 per cent of the returns, and the grades tested in 35 per cent. All grades are tested in 7 per cent of the cases. Only junior or senior high school grades (7 to 12) are tested in 11 per cent. The remaining 17 per cent routinely tuberculin test a variable distribution of grades throughout the twelve years of school. Follow-up of positive tuberculin test reactors with x-ray examinations was reported in 48 per cent of the communities. Since 43 per cent state that routine x-ray examinations are used, and these are usually in lieu of tuberculin tests, it may be assumed that most of those using tuberculin tests for screening follow up positive reactors with x-ray examinations.

Assuring Needed Medical Care

Obtaining needed medical care for children of families unable to pay for services is a problem in some schools. The welfare or relief department of the county or municipality usually pays for those receiving public assistance, or cares for them in public clinics or hospitals. In the 1,003 replies, 818 (82 per cent) state that the community has some method of assuring needed medical care to children. Established methods of arranging treatment for eligible children other than through public funds was reported by 56 per cent of those answering. In 10 per cent, services contributed without charges by private physicians were a means of giving such children necessary help. Nearly every known national or local agency providing individual health services was listed as contributing in some degree to the care of needy school children.

Screening and Referral Procedures

In the modern school health program the teacher is expected to detect changes in the child's appearance or behavior that suggest illness or improper growth and development. Channels should exist for prompt referral of such children for medical care, as well as channels through which physicians may advise teachers on special needs of individual children.

For the country as a whole, 77 per cent of the communities reported that teachers carry out rough screening procedures, and that 56 per cent have some training in observation and screening techniques. Medical societies participated in planning and carrying out the screening program in 23 per cent of the communities. An established method for the teacher to refer children to a physician through the family was reported by 80 per cent. The reverse of this, a procedure in which the family physician informs the school of a child's special health needs and makes suggestions for necessary modifications in the school program of such children was noted in 64 per cent of the replies.

Medical Guidance in Physical Education Including Athletics

Physical education is a significant part of the modern school program. Since children vary in their capacities for physical activity, graded activity is necessary for the protection of the health of some children. Regular class activities for the physically sound were reported by 86 per cent of those responding. Modified class activities for other children were available in 67 per cent. In 27 per cent of the communities, individual corrective exercise was provided on medical prescription. Family physicians recommended

assignment of children to different types of physical education when the need is indicated in 75 per cent of the communities.

In the high school interscholastic athletic program there is a high degree of medical guidance, possibly stimulated by regulations of State Athletic Association insurance and benefit plans covering injury to players. Such plans were reported in 80 per cent of the replies. Medical examination of athletes is done in some form in 91 per cent of the communities reported, and a physician is present at contests in which the injury hazard is great in 72 per cent of the communities. Eighty-five per cent require a physician's permit before a player with serious injury or illness may return to participation.

Intramural sports, open to all students who do not participate in interscholastic sports, were specified as available in 80 per cent, with medical permits for intramural participation required in 40 per cent of the communities.

The response to this question leads to the conclusion that medical guidance in interscholastic athletics has reached a higher level of development than other aspects of school health services. It is hoped that all students will some day enjoy the advantages of a school health service comparable to that provided for those engaged in athletics.

Emergency Care

For years, the desirability of a planned program of emergency care to cope with injuries and sudden illness in the school has been discussed by both educators and health personnel. Eighty-three per cent reported well stocked first aid kits, strategically placed in the school. Seventy-five per cent stated that one or more teachers in each school had some training in first aid. The names of parents' choices of physician for pupils were on file in 35 per cent of the schools, and posted steps to guide the school personnel in emergency care—so-called standing orders—were reported by 37 per cent.

Replies to this group of questions would suggest that more complete arrangements for emergency care need to be made in many places. Since sudden illness and accident are bound to occur in even the best organized school, it is important that more attention be given to this phase of health services.

Communicable Disease Control

Traditionally, communicable disease control has been the most emphasized school health service function. Exclusion and readmission procedures satisfactory to the school, to the health department, and to practising physicians are recorded in 87 per cent of the reports.

The modern concept is that immunization should be performed in infancy, and when done during school ages should be in the form of booster doses for strengthening existing protection. Immunization for smallpox prior to school entrance was reported for 72 per cent of the communities. Sixty-one per cent recorded diptheria immunization prior to school entrance. Immunization for other conditions included whooping cough, 16 per cent; tetanus, 8 per cent; typhoid fever, 7 per cent; and others 1 per cent. Local policies designed to discourage postponement of immunization until school entrance were reported in 46 per cent of the returned questionnaires.

The question regarding the per cent of immunizations made by private physicians, health department personnel, and school physicians was answered variably and is difficult to interpret. It is evident that the question as phrased was open to more than one interpretation, but unfortunately this did not show up in the trial run.

The health department is credited with all of the immunizations performed in only 2 per cent of the reports, and the school physician in slightly more than 1 per cent. More thon half the immunizations are listed as being done by the private physician in 43 per cent of the reports, by the health department in 18 per cent, and by the school physician in 2 per cent. These figures are not mutually exclusive.

Examination of School Personnel

Teachers and other school personnel form part of the environment to which the child is exposed. Preëmployment and periodic examinations are a means of evaluating the health of the human part of the child's school surroundings.

A preëmployment examination is required of teachers and administrative staff in 575 (58 per cent) of the 1,003 communities reported. Preëmployment examination of custodians, bus drivers, cafeteria staff, and other workers is required in 541 cases (54 per cent).

Analysis of replies to this question reveals that health examinations of teachers and other school personnel prior to employment are required in a little more than half of the communities reporting and that follow-up appraisals on any regular basis are mandatory in less than half the communities, 49 per cent for teachers and 44 per cent for other employees. The intimate contact that teachers have with the children in their charge certainly warrants early extension of measures to make sure that the health of teachers is good. The case is equally strong for initial and periodic appraisal of

the health status of food handlers, bus drivers, custodians, and maintenance staff who directly or indirectly deal with school children. With appreciation of the fact that periodic health examinations are only a part of the essential program, it can be said that efforts to improve this situation need to be strongly implemented.

Physician Aid to Development of Health Instruction

Health concepts change rapidly. Individual physicians and their professional socities can help schools to keep abreast of these changes. They are also a valuable resource in evaluating the scientific accuracy of films, pamphlets, texts, and other teaching materials, and because of their acquaintance with local health problems are in a position to suggest pertinent topics for health instruction.

Medical societies reported that they had helped in the development of health instruction in one or more of the above ways in 23 per cent of the returns. Although this is not a high proportion, it indicates a more extensive relationship of physicians with health instruction than might be expected. It is hoped that this kind of coöperation between physicians and the schools will become increasingly common.

Some comments, explanations, or extended remarks were made on 36 per cent of the returned questionnaires. Typical comments, excerpts, and abstracts will be found in the full report to be published soon.

Comments

The report, as a whole, reveals an unexpected interest and a considerable degree of participation by physicians and medical societies in the health aspects of the school program. The areas of relative deficiency can be improved as school personnel and physicians learn to work coöperatively as has been demonstrated in areas where significant advances have been made.

The full report of this survey, including tabulations of responses by census districts and supplementary remarks by those completing the questionnaire, will be published soon.

Recommendations

As a result of this study, and in consideration of the relationship of its findings to generally accepted school health policies and principles, the following recommendations are made:

1. That medical societies designate to a school health committee, or other appropriate committee of the society, the responsibility for counselling and advising with school and health department officials on the medical aspects of the school health program.

2. That the family physician, through his professional organization —the local medical society—be brought into the school health program during its planning stages so that he may participate understandingly in execution of the program.
3. That a committee or council be formed in the school community which will give attention to school health problems and provide a simple, orderly way of coöperating the efforts of those concerned with the health of school age children.
4. That policies for communicable disease control, emergency care, screening tests, medical examinations, and follow through and care of school children be worked out jointly by school personnel, practising physicians, and health department staff with emphasis on local solution to local problems.
5. That responsibilities of the school, the health department, and the medical society be broadly delineated on the basis of function, with the task of the school defined as teaching, that of the health department as preventing disease and protecting community health, and that of the medical society as advancing medical care.

REFERENCES

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2. Reports of the 1947 and 1949 Conferences on Physicians and Schools, Bureau of Health Education, American Medical Association.
3. *Health Appraisal of School Children*—Report of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association, 1948. A.M.A. and N.E.A.
4. *Health in Schools. Twentieth Yearbook,* American Association of School Administrators, 1942. N.E.A., 1201 16th Street, N.W., Washington, D. C.

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Rejection of Registrants—Rejection Rates,—By August 1, 1945, the number of 18 - 37-year-old registrants rejected because of physical or mental defects in the continental United States was 5,249,200, or 30.2 percent of the estimated total number examined. In no State was the rate of rejection lower than one in five men examined within this age range. The proportion of men rejected was generally higher in the southern States, probably due in large part to the relatively higher rates of rejection among Negroes than in the white population.

A substantial proportion of the registrants examined in 1940-43 was placed in the limited-service category. Combining these men with those completely disqualified, the total found unfit for general military service because of physical or mental defects was about 41 percent in the white group and 53 percent in the Negro.

A SURVEY OF THE STATUS OF SCHOOL PHYSICIANS

L. M. SMITH, M.D.

Chairman: Director, Division of School Health Service, Board of Public Education, Pittsburgh, Pa.

In January, 1950, Dr. William E. Ayling, President of the American School Health Association, acting on a resolution adopted by the school health association council, appointed a committee to make a nationwide survey to determine what is being done in the various cities with regard to school health service and the standing of school physicians in their communities. The committee appointed was made up as follows:

L. M. Smith, M.D., Pittsburgh Public Schools, Chairman
Roy J. Ward, M.D., Worcester, Massachusetts
John C. Danahy, M.D., Cincinnati Public Schools
C. D. Outland, M.D., Richmond Public Schools
Lee Corliss, M.D., Denver Public Schools

All members of the committee cooperated and worked diligently to make the survey a success. One hundred and twenty-four survey blanks were returned to the chairman, who attempted to make a summary of all the information obtained. Dr. C. E. Manwiller, Director of Curriculum Study and Research for the Pittsburgh Public Schools, was asked by me to make a summary in detail. Many blanks were returned without all the questions having been answered. A number of communities failed to return the questionnaire until they had been solicited several times. Obviously, it was possible to summarize only the answers submitted.

The survey questionnaire prepared by the chairman and approved by the committee called for the name of the city, the school population, whether services were to public or parochial schools, or both; the number of school physicians employed, hours required, whether the physician's service was for full school time or part time; whether service was for ten months, twelve months, or part of a year; whether health service personnel is employed by boards of education, city departments of health, or both; the salaries paid, and the number of school nurses employed.

The following questions were also asked:

1. How are school physicians selected? Does politics enter into the selection, or are they selected on merit?

2. Do the medical profession, the teaching profession, and the people of your community cooperate with school physicians, or is there antagonism to the service?

3. In your opinion, do the school physicians in your community do good work, fair work, or poor work?

4. What, in your opinion, is necessary to raise the standard of medical service in school health service?

5. What is the cost per pupil per year for school health service, exclusive of physical education, recreation, and classroom health instruction?

Below are given sample reports from three cities (Philadelphia, Boston, and Denver):

PHILADELPHIA, PA.*

School enrollment 213,151 public; 110,409 parochial. For the **public** schools, the Board of Education employs 96 medical inspectors, 15 hrs. per week (10 mos.), salary $2400, and 12 medical supervisors, 28 hrs. per week (12 mos.), salary $3600 to $5350 167 nurses and 7 supervisors. For the **parochial** schools, the Board of Education employs 20 medical inspectors part time (10 mos.), salary $2000; the Dept. of Health employs 19 medical inspectors, 15 hrs. per week (12 mos.), salary $2268, and 4 medical supervisors, 18 hrs. per week (12 mos.), salary $2658. The Board of Education pays the Dept. of Health $300 per year toward these salaries. 76 nurses, 2 supervisors are employed for parochial schools.

Public school physicians are selected from a list prepared after written and oral examinations. Parochial school physicians are appointed upon recommendation by the Division of Medical Services and approval of the Superintendent of Parochial Schools.

Excellent cooperation.

Physicians do good work.

RECOMMENDATIONS: Better health education.

BOSTON, MASS.*

School enrollment 93,438 (public). Board of Education employs 50 physicians part time, 10 mos. per year. Salary $1560 to $1800. 66 nurses.

Physicians appointed through Civil Service examinations with disabled veterans having preference; then veterans; then civilians.

Excellent cooperation.

Good work by physicians.

RECOMMENDATIONS: Specified hours of employment with adequate reimbursement; directed policies; improved methods in training school physicians.

Cost per year per pupil — $4.05.

*Since the figures were gathered by the committee, improvements have occurred in these figures. For comparative purposes, the figures of the report are used.—C.H.K.

DENVER, COLO.

School enrollment 51,870 (public and parochial). Board of Education employs 1 Director 12 mos. (4 wks. vacation), salary $10,000; 1 Asst. Director 12 mos. (4 wks. vacation) $8600, 1 physician full time 12 mos. (6 wks. vacation) $5600, 7 physicians part time (3 hrs. per day, 5 days per week, 8 mos.), salary $2135, and 4 consultants on call (8 mos. per year), salary $1360. 39 nurses and 1 supervisor.

Physicians selected on merit.

Full cooperation.

Physicians do good work.

RECOMMENDATIONS: Pay higher salaries in order to obtain and retain good personnel.

Cost per year per pupil — $4.06.

Under the question, "School Population," I find that a large number of school districts outside of Pennsylvania provide a major part of their health service to public school children and more or less neglect the parochial schools. Under Pennsylvania law, boards of public education, through their superintendents of schools, supervising principals, or principals, must provide the same health service to parochial schools as that received by the public schools.

Under the question, "Number of School Physicians Employed," out of 124 districts reporting, 83% reported the employment of physicians on a part time basis. In cities of medium size, with an average enrollment of approximately 22,000, an average of 7.5 physicians were employed, the number varying from three to twenty-five physicians on a part time basis for 22,000 pupils. Cities with a school population of 40,000 or more showed a tendency to employ more physicians, 88% of whom are on a part time basis. In communities of less than medium size, 76% of the physicians employed are for part time only.

In the majority of school districts, physicians are employed for ten or twelve months per year. With regard to salaries paid, school doctors in the West Coast states receive the highest compensation. The second highest rate of compensation is paid in the Middle Atlantic states. The Middle Western states rank third, and school doctors in the New England states receive the least compensation. The average compensation for part time school medical examiners and inspectors in the field, working from one to six hours per day, is $1885 per year. Undoubtedly, this is an extremely low figure for the type of service required. The highest salary paid a part time employee, working six hours daily, is $5500 per year. The lowest paid examiner, working one hour daily, was $400 per year.

The average compensation for full time directors or administrators was $6515 per year. The highest salary reported was $11,000 per year for full time service, and the lowest salary paid for full time service was $2600 per year. By and large, the pay per hour for school doctors does not equal the pay of a union mechanic or school teacher. According to the reports received, the service rendered by school doctors is as good, or better than should be expected, considering the poor compensation received by them. I have recently received reports that during the year 1950, many of these salaries have been raised. The law of supply and demand is probably having some effect on school physicians' salaries.

It was a surprise to me to find that cities like Chicago, Detroit, Kansas City, and several smaller communities were without a complete school health service as we recognize it. The survey shows that there is no uniformity of service throughout the country. Physicians may be employed by boards of education, by departments of health, or by both in a cooperative arrangement. In most districts school physicians are selected on the basis of merit. Other districts frankly reported that politics entered into their selection.

In the vast majority of districts reporting, the cooperation between the medical profession, the teaching profession, and the residents of the community is excellent. In fact, some districts reported that requests for services exceeded what it was possible for them to provide with their present staffs and limited finances.

In reply to the question as to what is necessary to raise the standard of medical services, we received twenty-seven different replies, but the great majority of them stated that more money was needed, and that the pay of school physicians should be greatly increased. Other replies were: "Employ more doctors," "More time for service," "Physicians need special training for work," "Education of the taxpayers, parents, and Parent-Teacher Associations to the importance of health service," "Teachers need better training in health," "Need better followup by family physicians," "Provide dental clinics," "Improve health education courses," "Provide treatment as well as medical examinations for the indigent," "Better qualified physicians at better salaries should be provided," and "Employ more nurses to work with the school doctors."

In conclusion, we believe that a much better job could have been done in conducting a survey of this type if we had taken two years instead of eight months to complete it. Full mimeographed summaries have been mailed to all directors of school health service in the various cities reporting. These data may improve the status

of school physicians when the authorities in different school districts have an opportunity to see how poorly paid school doctors really are for their services. Undoubtedly the prestige of school physicians should be raised, and this can only be done by paying better salaries.

There should be more uniformity of school health services throughout the country. Each state should have laws which would make it mandatory to provide school health service to all children in the state. There are too many districts in the United States that are guilty of neglect because of the lack of any kind of school health service, or uniformity of service to school children. We are firmly of the opinion that county medical organizations throughout the country should follow the recommendations of the American Medical Association in establishing school health services in every community of these United States.

January 15, 1951.

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Sally Lucas Jean,—Miss Sally Lucas Jean—often called "the mother of the health education movement in America"—retired from the National Foundation for Infantile Paralysis June 1.

Miss Jean has devoted a half century to health, creating the term "health education" in 1918 to replace what once was known in most school curricula as "hygiene". She has been health consultant and director of educational services for the National Foundation for the last eight years.

Miss Jean entered public health work as a school nurse in Baltimore in 1910 and organized her now-historic "toothbrush brigade" through which pupils were taught at school how to brush their teeth properly.

In 1948, Miss Jean's "joy in health" practices won her the William A. Howe Award for distinguished service from the American School Health Association, and the New York State Award of the American Association for Health, Physical Education and Recreation. She recently was elected a fellow of the Academy of Physical Education and is a life member of the National Education Association.

With a career in the health field stretching back to service as a registered nurse in the Spanish American War, Miss Jean is retiring in only the most formal sense.

"No one can come to an abrupt stop in this kind of work," she says. "Certainly I cannot. I shall continue to serve on many committees and plan to devote the next year to writing a book on the development of health education."

HEALTH EDUCATION ON THE COLLEGE LEVEL

A. O. DEWEESE

*Chairman of Health Education Committee**

A perusal of the past annual proceedings of our association will show that Health Instruction on the college and university campus during the past third of a century has passed through a stormy and undulating experience.

From all the experimentation, trials, and errors, successes and failures, at least four definite sound findings and procedures have, we believe, evolved. Your committee desires to present these for your approval, and for the guidance of your local college administrators.

1. Health Instruction courses have established themselves as legitimate parts of the academic curriculum. The wealth of educational and scientific material which they contain place them on equal par for academic credit with other subjects of the college and university curriculum.

2. Health, in its various aspects today, is vitally related to the economic, social, and political aspects of American society. Its scientific background and educational procedures are a vital part of our community, state, national, and international scene. Our colleges and universities are charged with the sound preparation of leaders for such a society. It is therefore, their moral duty to see that their curriculum insures sound training in health on the part of all their graduates.

3. Our society is needing and demanding trained leaders in the various specialties of Health Education and Health Administration. Many colleges and universities are meeting this obligation by creating a department of health instruction with a major and minor sequence on a par with other departments of the university.

More colleges and universities should be induced to do likewise, if the need is to be met.

Colleges and universities that participate in the training of public school teachers have a specific obligation to meet. It has become an accepted practice throughout America to assign to class room teachers many duties formerly assigned to the licensed nurse. In addition to these the educational procedures and instruction in health have become some of the most important of the class room teachers duties. For a number of years, health led the published

*Report of the Health Education committee at the annual meeting of the American College Health Association in Chicago, Ill., May 3, 4, 5, 1951.

and quoted objectives of public school education. In most schools it has now become a reality rather than a theory. In the colleges and universities training these teachers, a strong department of Health Instruction is paramount. Such department is also charged with the responsibilities of in-service teacher training, and the training of such special services as health counseling, health guidance, education and care of the handicapped.

4. The college or university Health Service still remains the cornerstone and bulwark of the campus health instruction, and health education. The Health Service must be the laboratory and proving ground for the campus health activities. Health Services were instituted for the educational purpose of bringing to the college campus that which medical science had to offer in the training and preparation for citizenship of the college student. If this educational objective is lost, the main excuse for their existence is gone.

Health Instruction, health education, and health counseling and guidance are the prime responsibilities of the Health Service regardless of what formal health instruction is otherwise offered on the campus. Such campus activities should supplement the professional activities of the Health Service.

One average university Health Service, with a student body of six thousand students, reports 41,124 personal physician-student contacts in one academic year. Anyone who has watched the hordes of students that swarm in and out of our college and university Health Services each day, will not discount the health instruction, guidance, and counseling that is performed in the most ideal scientific and educational environment. Neither would they deny that the formal health instruction and other campus activities are appendages that would lose their functional value unless they are closely related to the parent body — the Health Service.

In Health Instruction, like in all instruction in modern education, we recognize the superiority of the functional approach which gives rise to learning experience through the health related activities performed by the pupils. Such health education is outstanding in the attainments of results directly affecting health conduct and attitudes.

In the good old American way, many devices, plans, and procedures are being tried out on our various campuses to aid the Health Instruction and general improvement of campus health. From all of these, no doubt, will arise some procedures that later can be recommended as standard procedures. We wish to point out

a few of these that may have possibilities.

The Health Committee and the Health Council are very prevalent examples.

The Health Committee is one of the regularly organized Faculty Committees. Since the authority of the Faculty is limited to academic matters, the authority of its committees is likewise limited to academic matters. The chief function of the Health Committee is to correlate the health teaching throughout the various departments. This would seem to be an essential committee.

The Health Council is not composed solely of Faculty members from departments with health interests, but includes also representatives of administration (buildings and grounds, dining halls, dormitories, water supply), health services (infirmary, student clinic), physical education and recreation, and the student body. To attain continuity and consistency in policy it is common practice to have the University Physician, ex-officio, the executive officer of the Council, but the chairman is frequently elected by the members of the Council itself. In some universities the Council has only advisory power, in others it has actual administrative authority. The chief function is to correlate the health contributions of all parts of the university, administrative, and academic. Sample of matters brought to the Health Council are: the water supply of the campus community, the milk supply, planning for emergency or epidemic, student housing, campus dishwashing facilities, scheduling of classes, and events so far as they affect health of students.

In most cases they seem to be useful for a short while in emphasizing the importance of health, and contribute somewhat to functional health instruction. In many cases their usefulness seems to be short lived.

College presidents criticize them from the standpoint that good administration must be a fixed thing. In important matters some individual must have fixed responsibilities and be held accountable. Faculties criticize them from the standpoint that they deal with petty things and petty gripes, and it is impossible in such a group to maintain constructive emphasis on effective health teaching as a co-operative enterprise. The role of the college health council has been too narrowly conceived to be of much constructive co-ordinating help.

College health councils theoretically offer a valuable channel for co-ordinating health instruction, for relating the class room instruction to the work of the Health Service, and for insuring that the over-all content reflects the health needs of the student and

community. It is hoped that some reliable standard of organization, procedure, and definition of duties, will evolve that will insure their success and usefulness before interest is lost in the experimentation. We recommend such a study to our successors.

Several colleges and universities have been experimenting with the service of a Health Co-ordinator.

As a rule such a co-ordinator has had difficulty in making a place for himself on the college campus. His duties have been vaguely defined as the co-ordinator of all the health facilities upon the campus. More definite and acceptable specifications are needed concerning the place of the Health Co-ordinator on the university campus and the nature of his duties. The duties belonging to that position at present are too ill-defined and very controversial. His duties have been uncertain and exploratory and in so far as his campus services can be ascertained, they have, on the whole, achieved no conspicuous success in promoting inter-departmental co-ordination. (1)

If the idealistic functions of such a co-ordinator of psychology, sociology, administration, home economics, biology, and the special health departments is ever effective in functional health education programs, the position would need to carry personnel rather than administration procedures and ratings.

The promoters of the Health Co-ordinator feel that in time the outlines of his duties and responsibilities will take definite form here and there, and his apparent needs will be more widely recognized.

(1) "An Experience in Health Education"—The W. H. Kellogg Foundation.

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Health of Babies,—Recently, the Bureau of Health Education of the American Medical Association published a charming and instructive booklet on the health of babies — entitled "Calling All Parents." As indicated, this is designed for the information of parents. Profusely and attractively illustrated with pictures of babies, each with an appealing legend.

Concluded with a list of suggested readings. A copy may be secured from the American Medical Association, 535 No. Dearborn St., Chicago, Ill.

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MEETING

American School Health Association and the American Public Health Association at San Francisco, California, October 27 - November 2, 1951.

HISTORY

AMERICAN SCHOOL HEALTH ASSOCIATION*

Compiled by CHARLES H. KEENE, M.D.

At the conclusion of the annual meeting, October 1950, this Association completed twenty-five years of effort and service.

ORGANIZATION—1926

On the evening of October 13, 1926, at the Hotel Buffalo, Buffalo, N. Y., there gathered, at the instigation of William A. Howe, M.D. — at that time Chief of the Bureau of Medical Inspection of the New York State Department of Education — a group of sixty-three school physicians and others interested in furthering a better school health program.

In this group were a number who have attained distinction in the School Health field. Some of them, namely, Amos L. Beaghler, M.D., of Denver; L. W. Childs, M.D., of Cleveland; Harold H. Mitchell, M.D., later became Presidents of the Association.

As organized, membership was limited to Doctors of Medicine, and the name adopted was, "The American Association of School Physicians."

CONFERENCE — 1927

The second meeting, called a Conference, was held in Cincinnati, Ohio, on October 17, 1927. Dr. William A. Howe was Chairman.

A Constitution and By-Laws were adopted, and Dr. Howe was elected the first President. Three Committees were appointed:

1. "Standardization of Medical Inspection and Health service in Normal Schools and Colleges," Chairman, A. O. DeWeese, M.D., Director of the Division of Health, State Normal College, Kent, Ohio.
2. "Standardization of Methods and Forms for School Medical Inspectors and Health Service," Chairman, J. Bruce McCreary, Director, Bureau of Child Health, State Department of Health, Harrisburg, Pennsylvania.
3. "Educational Qualifications for School Physicians," Haven Emerson, M.D., College of Physicians and Surgeons, New York, N. Y.

No figures available as to the Association membership.

*The Report of the Committee on the History of the Association, Charles H. Keene, M.D., Chairman.

FIRST ANNUAL MEETING — 1928

The first formal annual meeting of the Association was held in Chicago, Illinois, October 15, 1928. By this time the membership had reached a total of 324 school physicians.

A formal program was presented: the chairmen of the three committees appointed the previous year reported — Dr. DeWeese and Dr. McCreary in considerable detail. These reports and the papers read by various speakers appear in "The History of the Establishment of the American Association of School Physicians with Proceedings of the First Annual Meeting." The chairman of this committee has a complete file of the minutes and reports of the Association from 1926 and of the Bulletins and Journals from the first ones in 1930 to date. Probably Dr. DeWeese and some others also have them.

JOINT SESSION — 1929

The next annual meeting, held at Minneapolis, Minnesota, September 30 and October 1, 1929, was a Joint Session of the Association with the Child Hygiene Section of the American Public Health Association. This was the first of our sessions held jointly with various Sections of the A.P.H.A.

The printed material for the 1929 volume of the Association contains only the papers read—eleven of them—on those two days.

On page 2, however, of the first regular Bulletin issued by the Association with William A. Howe, M.D., Editor, dated January 1930, it is indicated that at the meeting held the previous fall, the Association voted to publish an Association Journal. A letter to members was signed by L. W. Childs, M.D., President.

On November 1, 1929, the membership was 494, and the Association was operated on a budget of $1125.25 for 1929.

At that meeting (1929) John A. Ceconi, M.D., was chosen President for the ensuing year.

For the year 1930, the January to October Journals, inclusive, were mimeographed. January 1931, et seq., they were printed.

THIRD ANNUAL MEETING — 1930

This meeting—really the fifth gathering of the school physicians' group — was held at Fort Worth, Texas, October 27, 28, and 29, 1930. President — Dr. Childs.

For the following year (1931) the following officers were chosen:

President — Sven Lokrantz, M.D.
Four Vice Presidents
Secretary-Treasurer — William A. Howe, M.D.

Executive Committee of twelve
Bulletin Staff of seven
General Manager, William A. Howe, M.D.

At this meeting, too, L. W. Childs, M.D., was presented with the Ling Medal for meritorious service to the health of children.

On other dates the Ling Medal was presented also to W. A. Howe, M.D., and the Charles H. Keene, M.D.

Year	*Places of Meetings*	*Presidents*	*Membership*
1926	Buffalo, N. Y.	Organization Meeting	63
1927	Cincinnati, O.	A Conference Wm. A. Howe, M.D., President for 1927-1928.	Well attended but no figures given
1928	Chicago, Ill.	L. W. Childs, M.D., President for 1928-1929.	324
1929		John A. Ceconi, M.D., President for 1929-1930.	494
1930	Fort Worth, Tex.	Sven Lokranz, M.D., President for 1930-1931.	No figures available
1931	Montreal, Quebec	John E. Burke, M.D., President for 1931-1932.	863
		Dr. Howe had been getting $25. per month as Editor. At October 1931 meeting, this was increased to $75.	No figures available
1932	Washington, D. C.	John Bruce McCreary, M.D., President for 1932-1933.	Gained 101
1933*	Indianapolis, Ind.	A. O. DeWeese, M.D.. President for 1933-1934.	over 1931 No figures available

That year, too, the New York State School Medical Inspectors organized at Syracuse on September 27 (1933)

In November, 1933, Michigan organized its State Association of School Physicians.

1934 In 1934 at Saratoga Springs, New York, the Association meeting was held with the New York State Sanitary Conference. Each year since then the New York State School Physicians Association has continued these combined meetings.

The September 1934 Bulletin, page 11, has an interesting

*In the January 1933 issue of the School Physicians Bulletin there is the article by James Fredrick Rogers, M.D., on "Posture," which was one of the first sensible presentations of the whole picture as to the causes of faulty posture that had appeared in print.

financial presentation, as follows:

Amount due for membership up to January 1, 1934:

1930, 1931, 1932, 1933	(52)	$ 416.00*
1931, 1932, 1933	(153)	918.00
1932, 1933	(413)	1,652.00
1933	(228)	456.00
TOTAL		$3,442.00
Due for Advertising		$ 516.44

The salary of Dr. Howe, which had been $900.00 per annum, was increased up to $1800. per annum, and he was allowed $500. additional for traveling expenses, "if available." To take care of this possible $2300., plus the cost of printing and distributing the bulletin, the income from January 1 to June 22 was $2,060.89. Governments are not the only organizations that set up "Deficit Financing."

Year	*Places of Meetings*	*Presidents*	*Membership*
1934	Saratoga Springs, New York	Chas. H. Keene, M.D., President for 1934-1935.	No figures available

1934 Another meeting of the Association was held at Pasadena, California, in September 1934, jointly with the annual meeting of the American Public Health Association.

1935	Milwaukee, Wis.	Charles C. Wilson, M.D., President for 1935-1936.	No figures available

On June 26, 1935, at Saratoga, N. Y., the New York State Association of School Physicians was organized — formerly the New York State Medical Inspectors.

Also — in 1935 — on June 25, at Lake Saranac, New York — there was held the first meeting of the American School Physicians Committee on Childhood Tuberculosis—appointed the previous year by President Charles H. Keene, M.D.,; J. Arthur Myers, M.D., Chairman.

Year	*Places of Meetings*	*Presidents*	*Membership*
1936	New Orleans, La.	John A. Sundwall, M.D. President for 1936-1937	

In the 1936 November issue of the School Physicians Bulletin, pages 8 and 9, we find the first financial report for a complete year.

*The first group, owing $416.00, were allowed to settle for 50%. (How much of the 50% did we get?)

The balance at the beginning of the year		$ 66.79
The Association collected		3,067.85
and had on Oct. 1, 1936, a balance of		57.69
That year the cost of printing and distributing the Bulletin for 9 months was		1,125.03
Paid to William A. Howe— as Secretary-Treasurer	$760.00	
for travel	186.21	
		946.21

1937 At the time of the annual meeting at New York City, October 3-8, a revision of the Constitution and By-Laws was adopted, with a view to broadening the base and concept of the American Association of School Physicians. The proposal removed the restriction of membership to physicians only, and made the basis of eligibility rest on the candidate having had training in basic medical sciences — such as anatomy, physiology, and the like. The new Constitution and By-Laws are printed in full in the September 1937 issue of the Journal of School Health, page 167.

The list of officers under the new constitution was to include a President, a President-elect, two Vice Presidents — one in charge of membership, the other in charge of program making for the annual convention, a Secretary-Treasurer, and an Editor-in-Chief. Provision also was made for a Governing Council of fifteen — five to be elected each year for a three-year period. At the annual convention in 1936, too, the present editor, Charles H. Keene, M.D., was made Editor-in-Chief, effective with the issue of November of that year. Effective with the beginning of the new volume (vol. 7) on January, 1937, the title of the School Physicians Bulletin was changed to the Journal of School Health.

This year of the Journal of School Health, continuation of the School Physicians Bulletin, was listed as Volume VII, and the printing and publishing was moved to Buffalo, New York. Its leading article, "Tuberculosis in Children," was the first report of the Association's Committee on Tuberculosis, now the Committee on Childhood Tuberculosis. Its chairman then, as now, was Jay Arthur Myers, M.D., of Minneapolis, who has made a wonderful contribution toward the control of tuberculosis in children.

Year	*Places of Meetings*	*Presidents*	*Membership*
1938	Kansas City, Mo.	Harold H. Mitchell, M.D., President for 1938-1939.	
1939	Pittsburgh, Pa. Oct. 16-29	Charles L. Outland, M.D., President for 1939-1940.	
1940	Detroit, Mich Oct. 7-11	Amos L. Beaghler, M.D., President for 1940-1941.	

This year, on September 10, 1940, died William A. Howe, M.D., Organizer, and for the first ten years of the life of the Association, the chief worker, Secretary-Treasurer, and Editor.

1941	Atlantic City, N. J. October 13-17	Earl E. Kleinschmidt, M.D., President for 1941-1942.	
1942	St. Louis, Mo. October 26-30	Clair E. Turner, Ph.D.,* President for 1942-1943.	

Also 1942—This was a "fat" year for the Journal as to size; 340 pages. The usual size had been 250 to 300 pages.

1943	New York, N. Y. Oct. 11-14	C. Morley Sellery, M.D., President for 1943-1944.	
1944	New York, N. Y. Oct. 2-5	S. B. McPheeters, M.D., President for 1944-1945.	
1945	No annual convention meeting this year, owing to travel restrictions because of the war. However, the Governing Council met at Chicago, September 16, 1945, to transact necessary business.		

In the October and November issues of the Journal there was published in full the report of the National Committee on School Health Policies; Charles C. Wilson, M.D., Chairman. The Association sold 5000 reprints of this splendid report. Because of there being no General Convention, the same officers were re-elected for 1945-1946.

1946	Cleveland, O. Nov. 11-14	Helen A. Cary, M.D., President (our first woman) for 1946-47.	

Owing to the illness of Dr. Cary, Dr. Walter Wilkins, M.D., at the Cleveland meeting, was chosen President for 1946-1947.

1947	Atlantic City, N. J. Oct. 5-9	David Vanderslice, M.D., President for 1947-1948.	
1948	Boston, Mass. Nov. 8-10	Cyrus H. Maxwell, M.D., President for 1948-1949.	

*The first President of the Association not a Doctor of Medicine — and the skies did not fall!

Year	*Places of Meetings*	*Presidents*	*Membership*
1949	New York, N. Y. Oct. 24-29	William A. Ayling, M.D., President for 1949-1950.	
1950	St. Louis, Mo. Oct. 29 - Nov. 3	Gertrude E. Cromwell, R.N., President for 1950-1951.	

NAMES OF RECIPIENTS OF WILLIAM A. HOWE HONOR AWARD

Mrs. W. A. Howe	Dr. Charles H. Keene
Dr. L. W. Childs	Dr. Amos Beaghler
Dr. H. DeLamater	Dr. Helen Carey
Dr. J. F. Rogers	Sally Lucas Jean, R.N.
Dr. Walter Cornell	A. O. DeWeese, M.D.
Dr. John Sundwall	Clair E. Turner, M.D.
Dr. J. E. Burke	V. K. Volk, M.D.

Probably the best measurement of the growth and prosperity of the American Association of School Physicians is the circulation from year to year.

For a number of the years, previous to 1937, these figures are not available:

		Present
1926	Present at Association Meeting	63
1927	A Conference	No figures found
1928	First Annual Meeting	324
1929		494
1930	No figures available	
1931	No figures available	
1932		863
1933	No figures available	
1934	No figures available	
1935	No figures available	
1936	No figures available	

Beginning with 1937 and going to October 1940 there is the record of the number of copies of the Journal printed each month. These figures are given as of October 1st in each year:

1937 — 1525	1939 — 1585
1938 — 1600	1946 — 1450

Beginning with 1941 and going up to and including 1950, the numbers of copies sent to members and subscribers as of October 1 in each year are as follows:

1941 — 1391	1946 — 2394
1942 — 1430	1947 — 2568

1943 — 1440	1948 — 3258
1944 — 1575	1949 — 3313
1945 — 1709	1950 — 3417

Effective January 1, 1949, the membership dues were increased from $2.00 to $3.00 per year. The subscription rate, from $1.75 to $3.00 per year.

(It costs the Association practically as much to carry a subscriber as it does a member.)

Whatever the number of members or subscribers lost because of this increase in dues, that number was made up by the end of the next Association year.

If the Report seems to be over-emphasized regarding membership and the Journal of School Health, I trust you will grant pardon. There are two reasons for this — one is that they are the things of which there is the best record; the other is that they are probably the best indices of the growth and condition of the Association.

The Report is sketchy in several particulars, owing largely to the fact that the early issues of the School Physicians Bulletin carry little of historical value. After 1936 the officers and governing council of the association realized the need for better records, and, often, these were published.

CHARLES H. KEENE, M.D.

* * * * *

Polio Pointers For 1951—If Polio Comes . . .

DO—Allow children to play with friends they have been with right along. Keep them away from new people, especially in the close daily living of a home.

Because—Once polio has appeared in a community, scientists say the virus probably is widespread. Your children probably have come in contact with it already and developed a degree of resistance to that particular virus.

DO—Wash hands carefully before eating and always after using the toilet—especially important when polio is around. Also, keep food clean and covered.

Because—Hands may carry polio infection into the body through the mouth. Scientists have determined that large amounts of virus are excreted from the bowel and throat of a patient as well as a healthy carrier during seasonal outbreaks.

(*Continued on page* 219)

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EDITORIAL

Theory vs. Practice,—The old battle between practical experienced workers on the one hand, and the largely inexperienced and often uninformed theorists on the other hand, continues.

The workers make progress through experience and by minor experimentation whereby a need or a change in conditions is met in detail and by adjustment. This is the laboratory method by means of which civilization has progressed.

The theorists, however, lacking practical experience and adequate contact with the problems, and often with the world at large, desire to construct a new world overnight and to force their theories upon an experienced world. The outstanding example of this is Communism and the Communist state,—Russia, which is willing to plunge the world into a war of self-destruction, hoping to gain its end and to force its theories upon the world.

In the field of education we see similar divergences of opinion and of procedure.

In the area of health services in the schools, the dominance of theory over experienced based practice would be a particular and great calamity. Locally and on the state level we see, at times at least, a type of administrative organization that places in positions of supervision persons who have little practical training or experience in medicine, in local school administration, with children, or in personal and community relations.

The result of such organization is inefficiency, waste of effort, and antagonism in each direction. The supervising person senses

his inadequacy and lack of "know how," with resulting "do nothing" or impractical directions. The practically experienced worker senses that this set up is ineffective, a waste of public funds, and unfair to the person who is actually doing the work for the children and their parents in the schools themselves.

The actual workers in the school health services,—physicians, nurses, dental personnel and those in the services for the handicapped—desire supervision provided it is *constructive* supervision of a practical, helpful sort. Only when the supervising person has long, practical experience in the field—in the schools at the school district level—is such helpful supervision possible. Just as a huge proportion of the armed services look upon a high ranking general who lacks field experience with suspicion, and with distinct lack of enthusiasm, so do practically experienced school health workers view with suspicion inexperienced supervisors in their field.

In order to be really valuable to the schools, such experience should be in elementary and secondary schools, not at the college or university level. Not only is there a great difference in age level, but the objectives are different, and the college health service has slight contact with parents, and more with classroom teachers or Boards of Education.

Local school physicians and school nurses desire supervision, but it must be help based on experience, not merely "directives."

—*C. H. K.*

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(*Continued from page* 217)

DO—Watch for signs of sickness, such as headache, fever, sore throat, upset stomach, sore muscles, stiff neck or back, extreme tiredness or nervousness, trouble in breathing or swallowing.

Because—During an outbreak of polio, symptoms vary from the very vague to actual paralysis. Watch closely for all symptoms during this period.

DO—Put a sick person to bed at once, away from others, and call the doctor. Quick action may lessen crippling.

Because—While paralysis cannot be prevented, doctors have determined that early bedrest and prompt treatment may influence progress of the disease and lessen the severity of deformities.

DO—Telephone your local Chapter of the National Foundation for Infantile Paralysis, if you need help. Locate through telephone book or health department. No patient need go without care for lack of money. Your Chapter will pay what you cannot afford.

Because—The 2800 local Chapters of the National Foundation, supported by your contributions to the March of Dimes, exist for this purpose. Other March of Dimes funds are spent for scientific research and the training of much-needed professional personnel.

DO—Remember, at least half of all polio patients get well without any crippling.

Because—Recent surveys show that 50% of all diagnosed polio cases suffer no paralysis at all. Another 25% recover with no disabling after-effects. Fifteen per cent are severely paralyzed and about eight per cent die.

DON'T—get over-tired by hard play, exercise, work or travel. This means men, women and children.

Because — Scientists believe that once a person has become infected with polio, a delicate balance exists between the polio virus and the body's ability to fight it. The scales can be tipped in favor of the virus by over-exertion. A recent study revealed that heavy exertion in the early stages of the disease resulted in more severe and extensive paralysis.

DON'T—get chilled. Don't bathe or swim long in cold water or sit around in wet clothes.

Because—Research has indicated that chilling and physical exertion seem to lower body resistance to the virus, once it has entered your body.

DON'T—have mouth or throat operations during a polio outbreak.

Because—Recent surveys have demonstrated that tonsillectomies performed at this time increase the risk of getting bulbar polio (most serious form) by 11 times.

DON'T—use another person's towels, dishes, tableware or the like.

Because—Virus is excreted from the bowel and throat and may be transferred unknowingly by these implements.

DON'T—take children to places where there is polio; ask your health department for advice.

Because—Moving the child would needlessly expose him to the polio virus.

DON'T—take your child out of camp or playground, where there is good health supervision.

Because—He already has been exposed to the virus by the time a case has been reported. Routine daily living under proper supervision, such as good camps and playgrounds offer, is a safeguard to his health. From: Education Service, National Foundation for Infantile Paralysis, 120 Broadway, New York 5, N. Y.